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MYCOLOGIA

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ILLUSTRATIONS OF FUNGI—XX

WILLIAM A. MURRILL

Most of the illustrations on the accompanying plate were drawn from specimens collected in or near the New York Botanical Garden. Two of them, figures 3 and 5, were copied from studies by Mr. George E. Morris. *Clitocybe illudens* is distinctly poisonous, but easily recognized; *Collybia platyphylla* is edible, but of little importance as food.

Clitocybe illudens (Schw.) Sacc.

DECEIVING CLITOCYBE. JACK-MY-LANTERN

Plate 158. Figure 1. × 1

Pileus convex to plane or depressed, irregular, often umbonate, densely cespitose, 10–20 cm. broad; surface glabrous, saffron-yellow; context thick, white or yellowish becoming sordid with age, the odor agreeable and the taste not characteristic; lamellae broad, decurrent, saffron-yellow; spores abundant, globose, hyaline, 4–5 μ; stipe long, firm, glabrous, concolorous, tapering toward the base of the cluster.

This species is readily recognized by its large size and brilliant coloring. It occurs throughout the eastern United States from midsummer to autumn in large clusters about dying trunks and stumps of deciduous trees. On dark nights, these clusters and also pieces of dead wood containing the mycelium are usually conspicuously phosphorescent. The plant is distinctly poisonous,

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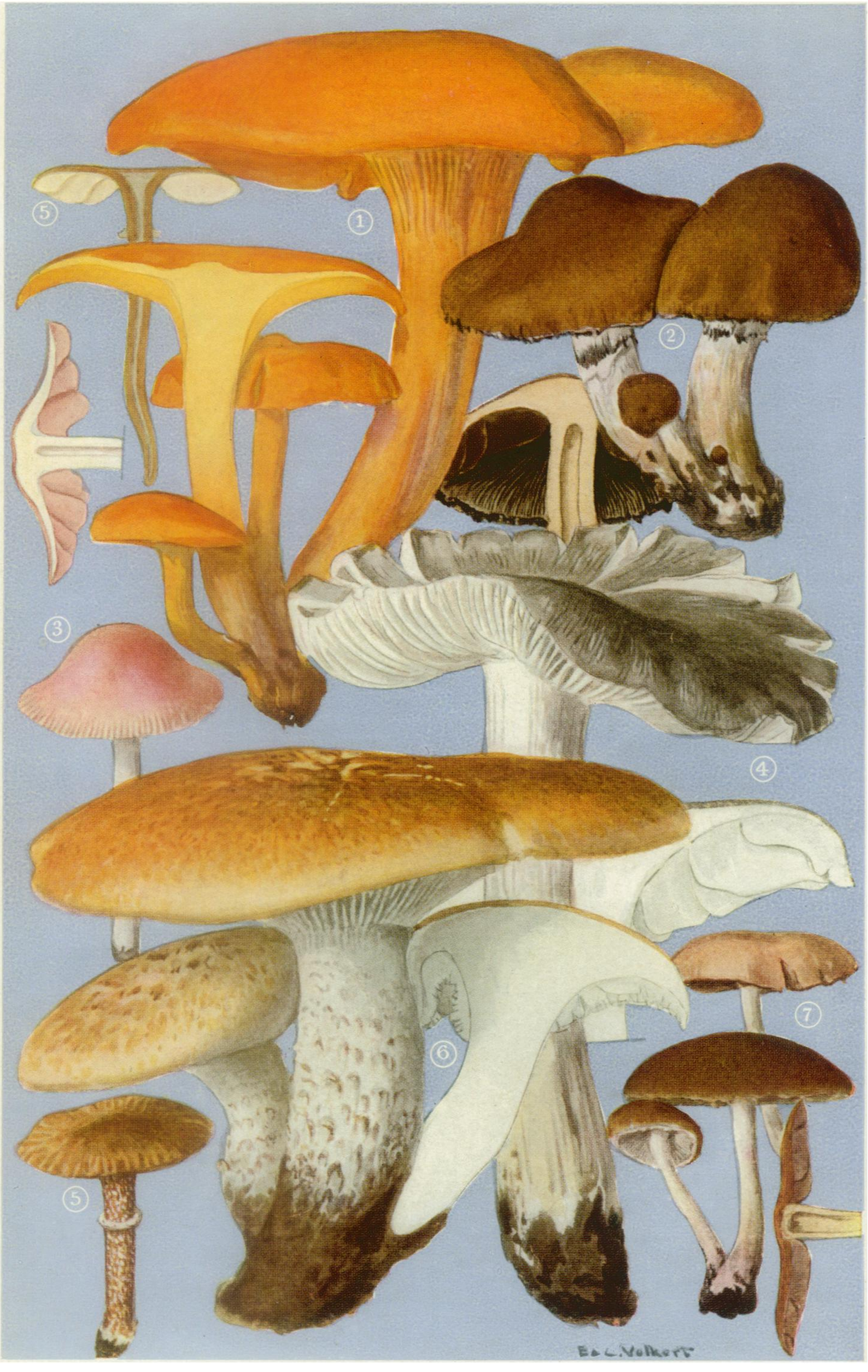

ILLUSTRATIONS OF FUNGI

showing a muscarin reaction on the nerves of the heart, and producing nausea, vomiting, and diarrhea. An article on the poisonous properties of this interesting species appeared in *Mycologia* for July, 1913.

Hypholoma lacrymabundum (Bull.) Quél.

WEEPING HYPHOLOMA

Plate 158. Figure 2. × 1

Pileus rather fleshy, ovoid to expanded, sometimes broadly umbonate, solitary or cespitose, 5–8 cm. broad; surface fulvous to isabelline with intermediate shades, darker on the umbo, covered when young with appressed, matted fibers, which may disappear with age or collect into small squamules, the cuticle cracking areolately at times, margin not striate; context very thin, concolorous, the taste mild or slightly disagreeable, the odor not characteristic; lamellae rather crowded, sinuate-adnexed or adnate, somewhat ventricose, yellowish, shading to umber and spotted with black and rusty-brown as the spores mature, whitish on the edges; spores nearly lemon-shaped, apiculate, opaque, tuberculose, very dark brown under the microscope, black in mass, $8–10 \times 4–6 \mu$; cysidia abundant, $40 \times 9 \mu$; stipe equal or slightly enlarged below, subconcolorous, nearly white at the apex, hollow, 5–10 cm. long, 8–12 mm. thick; veil of whitish, fibrous tufts adhering partly to the margin and partly to the stipe.

This species is not uncommon in many parts of the eastern United States and Europe, in grass or weeds in the open or among leaves or about old stumps in thin woods, appearing from the middle of June to October in this latitude. It comes up regularly on my lawn each year, sometimes solitary and sometimes in dense clusters, but always attractive because of its splendid coloring and its peculiar "weeping" character. Its surface characters vary considerably with age and weather conditions. I have not tested its edibility.

The history of this species is rather confusing. It was originally described by Bulliard as *Agaricus lacrymabundus* and figured by him and by Sowerby. Persoon gave it a new name, *Agaricus velutinus,* which Fries reduced to a variety when he took up Bulliard's name, but later, in figuring the species, Fries emphasized the squamulose character often seen in large, old plants rather than the more usual appressed-fibrillose character of the surface. While the two specific names above cited refer to the same thing historically, they have been used in this country to distinguish the squamulose specimens of this group from the fibrillose or velvety ones. There is no doubt that we have in America some varieties or species not represented in Europe, all with the peculiar, opaque, tuberculose, lemon-shaped spores. Peck's key to these is given here for the convenience of collectors. The different generic names that have been assigned to this group need not be discussed at present.

Peck's Key to Hypholoma § Velutina

Pileus persistently hairy-sqamulose or fibrillose.	
Hymenophore cespitose; spores 8–10 × 5–6 μ.	1. *H. lacrymabundum.*
Hymenophore gregarious; spores 10–12 × 6–8 μ.	2. *H. rigidipes.*
Pileus partly or wholly glabrous.	
Pileus smooth, the cuticle often rimose.	3. *H. Boughtoni.*
Pileus rugose or radiately wrinkled.	
Pileus tawny; spores rough.	4. *H. rugocephalum.*
Pileus brown; spores smooth.	5. *H. delineatum.*

Mycena pura (Pers.) Quél.

Pure Mycena

Plate 158. Figure 3. × 1

Pileus fleshy, thin, campanulate or convex to expanded, obtusely umbonate when young, 2–5 cm. broad; surface smooth, glabrous, of uniform color, varying from rose to rose-purple, violet, or lilac, margin striate, upturned with age; lamellae rather broad, adnate to sinuate, sometimes wavy and crenate on the edges, venose-connected, varying from white to shades of rose or violet, sometimes white on the edges; spores oblong, hyaline, 6–8 × 3–3.5 μ; stipe firm, smooth subglabrous, concolorous, hollow, somewhat villose at the base, 5–8 cm. long, 2–4 mm. thick.

This beautiful little species is common on the ground in woods throughout temperate North America and Europe. It varies considerably in shape, sometimes being small and bell-shaped with a long stipe and at other times being quite broad and from convex to plane with a short stipe. An old French chart includes it among the dangerous species, but its properties have probably not been thoroughly investigated. Even if harmless, it is too small and thin to be considered for food. The color varieties of this species had already received several specific names before Persoon grouped them under *Agaricus purus.*

Collybia platyphylla (Fries) Quél.

BROAD-GILLED COLLYBIA

Plate 158. Figure 4. × 1

Pileus large, thin, fragile, convex to expanded, 8–15 cm. broad; surface whitish to grayish-brown or dark-brown, at times darker on the disk, innately fibrillose to subglabrous, margin often upturned with age; context white, sometimes with a faint agreeable odor; lamellae adnexed, very broad, usually deeply emarginate, subdistant, white; spores subglobose or broadly ellipsoid, smooth, hyaline, 7–10 × 6–7 μ; stipe equal or tapering upward, often striate, whitish, sometimes slightly pulverulent at the apex, fleshy, stuffed or hollow, 7.5–12 cm. long, 2 cm. thick.

This large, conspicuous species is abundant throughout most of temperate North America and Europe, occurring in thin woods on and about deciduous logs and stumps, from June to October. The collector is apt to assign it to the genus *Melanoleuca,* because of its sinuate lamellae and rather fleshy stipe, but it may be distinguished from most of the species of this genus by its wood-loving habit. Although edible, it is quickly attacked by insects and also decays rapidly, so that it is practically of very little economic importance.

Lepiota amianthina (Scop.) Quél.

GRANULOSE LEPIOTA

Plate 158. Figure 5. × 1

Pileus ovoid to campanulate and expanded, subumbonate, 2–6 cm. broad; surface finely to coarsely granulose, ochraceous to reddish-ferruginous varying to pallid or pinkish; context thin, white or yellowish, often with a disagreeable odor; lamellae free to adnexed or adnate, rather broad, close, white becoming yellowish; spores ellipsoid or subglobose, smooth, hyaline, 3–7 × 2.5–4 μ; stipe subequal, slender, fistulose, scaly below the annulus and concolorous, 4–8 cm. long, 2–7 mm. thick; veil lacerate, more or less appendiculate.

This species is common in a great variety of forms throughout temperate North America and Europe, occurring in woods on the ground or at times on decayed logs. The surface of the pileus is characteristically granulose, although its variations in color are very confusing, and the lamellae may be free, adnexed, or adnate. A monograph of the 88 North American species of the genus *Lepiota* appeared in Volume 10, part 1, of *North American Flora,* issued in July, 1914.

Lentodium squamosum (Schaeff.) Murrill

SCALY LENTODIUM

Plate 158. Figure 6. × 1

Pileus fleshy to tough, compact, hard when dry, convex or nearly plane, sometimes slightly depressed in the center and sometimes umbonate, solitary or cespitose, 5–15 cm. broad; surface white or pale-ochraceous, the cuticle cracking and usually forming brownish, spot-like scales, which are sometimes almost black; context white, with agreeable odor; lamellae subdistant, broad, sinuate-decurrent, transversely lacerate and dentate-serrate on the edges, white; spores ellipsoid, 7–15 × 3–6 μ; stipe white or whitish, short, hard, solid, often pointed at the base, more or less adorned with recurved scales, sometimes eccentric, 2.5–6 cm. long, 6–12 mm. thick; annulus fixed, white, often disappearing.

This conspicuous species, usually known as *Lentinus lepideus,* occurs abundantly throughout temperate and tropical North America, as well as in Europe and Asia, on structural timbers and logs, especially of coniferous trees. It is very important as a timber-destroying fungus, railway ties being particularly subject to its attack. Although not poisonous, it is too tough to be used for food. Its large size and scaly surface should enable the student to distinguish it very readily.

Hypholoma Candolleanum (Fries) Quél.

VIOLET-GILLED HYPHOLOMA

Plate 158. Figure 7. × 1

Pileus thin and fragile, convex to expanded, gregarious or cespitose, 3–6 cm. broad; surface smooth or rugose, striate at times, glabrous or slightly floccose, hygrophanous, dark-fulvous, fading to isabelline on dry days; lamellae adnexed, crowded, narrow, pallid to purplish when young, purplish-black with age; spores oblong-ellipsoid, very blunt at each end, smooth, dark-brown in mass, pale-purplish-brown under the microscope, copious, 6–7 × 3–4 μ; stipe slender, equal, hollow, white, smooth, glabrous or slightly flocculose, striate at the apex, 3–7 cm. long, 4–6 mm. thick; veil white, very slight and delicate, clinging partly to the margin and partly to the stipe, soon vanishing.

This edible species is not uncommon on the ground or on rotten wood in deciduous woods in temperate regions, although it is not well known in this country. DeCandolle originally assigned to it the name *Agaricus violaceolamellatus,* on account of the violet color of the young lamellae, by which it may be distinguished from its very near relative, *Hypholoma appendiculatum,* described and figured in *Mycologia* for January, 1912. Fries, in 1818, changed the name to *Agaricus Candolleanus,* probably disliking the specific name chosen by DeCandolle because of its length. The specimens I have seen do not show the violet color in the very young lamellae and are not so large as the European plant, but, in a difficult group like this one, I suppose some allowances must be made.

NEW YORK BOTANICAL GARDEN.